

1. (Amended) A method of preparing a protein array based on biochemical protein-protein interaction, comprising the steps of:

(a) depositing on a substrate an array of a first protein, the first protein comprising a PDZ domain; and

(b) applying a second protein, which comprises an amino acid sequence (S/T)-X-(V/I/L)-COOH, to the first protein array, the amino acid sequence (S/T)-X-(V/I/L)-COOH of the second protein binding to the PDZ domain of the first protein,

wherein each hyphen represents a peptide bond, each parenthesis encloses amino acids which are alternatives to one other, each slash within such parentheses separates the alternative amino acids, and the X represents any amino acid which is selected from the group [comprising the twenty naturally occurring amino acids] consisting essentially of alanine, cysteine, aspartic acid, glutamic acid, phenylalanine, glycine, histidine, isoleucine, lysine, leucine, methionine, asparagine, proline, glutamine, arginine, serine, threonine, valine, tryptophan and tyrosine.

10. (Amended) The method of claim 1, wherein at least one array element [of the protein array] also includes an oligonucleotide.

11. (Amended) The method of claim 1, wherein at least one array element [of the protein array] also includes messenger RNA.

12. (Amended) The method of claim 1, wherein at least one array element [of the protein array] also includes DNA.

13. (Amended) The method of claim 1, wherein at least one array element also includes a sugar.

14. (Amended) A method of preparing a protein array, comprising the steps of:

(a) depositing on a substrate an array of first proteins, each first protein comprising a [corresponding] PDZ domain corresponding to the first protein; and

(b) applying a second protein, which comprises an amino acid sequence (S/T)-X-(V/I/L)-COOH, to the array of first proteins, the amino acid sequence (S/T)-X-(V/I/L)-COOH of the second protein, for each of the first proteins, binding to the PDZ domain of the first protein,

wherein each hyphen represents a peptide bond, each parenthesis encloses amino acids which are alternatives to one other, each slash within such parentheses separates the alternative amino acids, and the X represents any amino acid which is selected from the group comprising the twenty naturally occurring amino acids.

16. (Amended) A method of preparing a [protein] polypeptide array, comprising the steps of:

(a) depositing on a substrate an array of a first polypeptide, the first polypeptide comprising a PDZ domain; and

(b) applying a second polypeptide which comprises an amino acid sequence (S/T)-X-(V/I/L)-COOH to the first polypeptide array, the amino acid sequence (S/T)-X-(V/I/L)-COOH of the second polypeptide binding to the PDZ domain of the first polypeptide,

wherein each hyphen represents a peptide bond, each parenthesis encloses amino acids which are alternatives to one other, each slash within such parentheses separates the alternative amino acids, and the X represents any amino acid which is selected from the group comprising the twenty naturally occurring amino acids.

17. (Amended) The method of claim 16, wherein at least one array element [of the protein array] also includes an oligonucleotide.

18. (Amended) The method of claim 16, wherein at least one array element [of the protein array] also includes messenger RNA.

19. (Amended) The method of claim 16, wherein at least one array element [of the protein array] also includes DNA.

20. (Amended) The method of claim 16, wherein at least one array element [of the protein array] also includes a sugar.